Guillermo A Ameer

List of Publications by Year
in descending order

118 papers	10,655 citations	66343 42 h-index	33894 99 g-index
122 all docs	122 docs citations	122 times ranked	14722 citing authors

#	Article	IF	Citations
1	Notch Signaling Augments BMP9-Induced Bone Formation by Promoting the Osteogenesis-Angiogenesis Coupling Process in Mesenchymal Stem Cells (MSCs). Cellular Physiology and Biochemistry, 2017, 41, 1905-1923.	1.6	1,939
2	A tough biodegradable elastomer. Nature Biotechnology, 2002, 20, 602-606.	17.5	1,136
3	Novel Citric Acid-Based Biodegradable Elastomers for Tissue Engineering. Advanced Materials, 2004, 16, 511-516.	21.0	499
4	3-D bioprinting technologies in tissue engineering and regenerative medicine: Current and future trends. Genes and Diseases, 2017, 4, 185-195.	3.4	452
5	Synthesis and evaluation of poly(diol citrate) biodegradable elastomers. Biomaterials, 2006, 27, 1889-1898.	11.4	346
6	Hemocompatibility evaluation of poly(glycerol-sebacate) in vitro for vascular tissue engineering. Biomaterials, 2006, 27, 4315-4324.	11.4	335
7	Three-dimensional piezoelectric polymer microsystems for vibrational energy harvesting, robotic interfaces and biomedical implants. Nature Electronics, 2019, 2, 26-35.	26.0	322
8	Copper Metalâ€"Organic Framework Nanoparticles Stabilized with Folic Acid Improve Wound Healing in Diabetes. ACS Nano, 2018, 12, 1023-1032.	14.6	282
9	Biodegradable Elastomers and Silicon Nanomembranes/Nanoribbons for Stretchable, Transient Electronics, and Biosensors. Nano Letters, 2015, 15, 2801-2808.	9.1	281
10	A Cooperative Copper Metalâ€"Organic Frameworkâ€Hydrogel System Improves Wound Healing in Diabetes. Advanced Functional Materials, 2017, 27, 1604872.	14.9	280
11	The blood and vascular cell compatibility of heparin-modified ePTFE vascular grafts. Biomaterials, 2013, 34, 30-41.	11.4	240
12	Biodegradable polyester elastomers in tissue engineering. Expert Opinion on Biological Therapy, 2004, 4, 801-812.	3.1	189
13	A citric acid-based hydroxyapatite composite for orthopedic implants. Biomaterials, 2006, 27, 5845-5854.	11.4	184
14	Advances and Applications of Biodegradable Elastomers in Regenerative Medicine. Advanced Functional Materials, 2010, 20, 192-208.	14.9	168
15	Polymerâ€Based Nitric Oxide Therapies: Recent Insights for Biomedical Applications. Advanced Functional Materials, 2012, 22, 239-260.	14.9	155
16	Stretchable, dynamic covalent polymers for soft, long-lived bioresorbable electronic stimulators designed to facilitate neuromuscular regeneration. Nature Communications, 2020, 11, 5990.	12.8	144
17	3Dâ€Printing Strong Highâ€Resolution Antioxidant Bioresorbable Vascular Stents. Advanced Materials Technologies, 2016, 1, 1600138.	5.8	138
18	Recent Insights Into the Biomedical Applications of Shapeâ€memory Polymers. Macromolecular Bioscience, 2012, 12, 1156-1171.	4.1	136

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19	Novel Biodegradable Shapeâ€Memory Elastomers with Drugâ€Releasing Capabilities. Advanced Materials, 2011, 23, 2211-2215.	21.0	134
20	Urinary bladder smooth muscle regeneration utilizing bone marrow derived mesenchymal stem cell seeded elastomeric poly(1,8-octanediol-co-citrate) based thin films. Biomaterials, 2010, 31, 6207-6217.	11.4	129
21	Novel Biphasic Elastomeric Scaffold for Small-Diameter Blood Vessel Tissue Engineering. Tissue Engineering, 2005, 11, 1876-1886.	4.6	122
22	A new biodegradable polyester elastomer for cartilage tissue engineering. Journal of Biomedical Materials Research - Part A, 2006, 77A, 331-339.	4.0	121
23	Hemocompatibility evaluation of poly(diol citrate)in vitro for vascular tissue engineering. Journal of Biomedical Materials Research - Part A, 2007, 82A, 907-916.	4.0	117
24	Potent laminin-inspired antioxidant regenerative dressing accelerates wound healing in diabetes. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6816-6821.	7.1	117
25	Sustained release of stromal cell derived factor-1 from an antioxidant thermoresponsive hydrogel enhances dermal wound healing in diabetes. Journal of Controlled Release, 2016, 238, 114-122.	9.9	105
26	Citrate-Based Biomaterials and Their Applications in Regenerative Engineering. Annual Review of Materials Research, 2015, 45, 277-310.	9.3	103
27	A Thermoresponsive Biodegradable Polymer with Intrinsic Antioxidant Properties. Biomacromolecules, 2014, 15, 3942-3952.	5.4	95
28	Engineering biodegradable polyester elastomers with antioxidant properties to attenuate oxidative stress in tissues. Biomaterials, 2014, 35, 8113-8122.	11.4	94
29	Stem cells, growth factors and scaffolds in craniofacial regenerative medicine. Genes and Diseases, 2016, 3, 56-71.	3.4	93
30	Modulating Expanded Polytetrafluoroethylene Vascular Graft Host Response via Citric Acid-Based Biodegradable Elastomers. Advanced Materials, 2006, 18, 1493-1498.	21.0	88
31	The role of nanocomposites in bone regeneration. Journal of Materials Chemistry, 2008, 18, 4233.	6.7	82
32	Engineering sub-100 nm multi-layer nanoshells. Nanotechnology, 2006, 17, 5435-5440.	2.6	75
33	The wonders of BMP9: From mesenchymal stem cell differentiation, angiogenesis, neurogenesis, tumorigenesis, and metabolism to regenerative medicine. Genes and Diseases, 2019, 6, 201-223.	3.4	71
34	Cotransplantation with specific populations of spina bifida bone marrow stem/progenitor cells enhances urinary bladder regeneration. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 4003-4008.	7.1	68
35	Albumin Hydrogels Formed by Electrostatically Triggered Self-Assembly and Their Drug Delivery Capability. Biomacromolecules, 2014, 15, 3625-3633.	5.4	65
36	Sustained transgene expression via citric acid-based polyester elastomers. Biomaterials, 2009, 30, 2632-2641.	11.4	60

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37	A thermoresponsive polydiolcitrate-gelatin scaffold and delivery system mediates effective bone formation from BMP9-transduced mesenchymal stem cells. Biomedical Materials (Bristol), 2016, 11, 025021.	3.3	59
38	Advanced Functional Biomaterials for Stem Cell Delivery in Regenerative Engineering and Medicine. Advanced Functional Materials, 2019, 29, 1809009.	14.9	58
39	Toward Engineering a Human Neoendothelium with Circulating Progenitor Cells. Stem Cells, 2010, 28, 318-328.	3.2	52
40	Thermoresponsive Citrate-Based Graphene Oxide Scaffold Enhances Bone Regeneration from BMP9-Stimulated Adipose-Derived Mesenchymal Stem Cells. ACS Biomaterials Science and Engineering, 2018, 4, 2943-2955.	5.2	52
41	High-speed on-demand 3D printed bioresorbable vascular scaffolds. Materials Today Chemistry, 2018, 7, 25-34.	3.5	50
42	Conducting Polymers for Tissue Regeneration <i>in Vivo</i>. Chemistry of Materials, 2020, 32, 4095-4115.	6.7	49
43	Targeting Heparin to Collagen within Extracellular Matrix Significantly Reduces Thrombogenicity and Improves Endothelialization of Decellularized Tissues. Biomacromolecules, 2016, 17, 3940-3948.	5.4	44
44	Stem cell therapy for chronic skin wounds in the era of personalized medicine: From bench to bedside. Genes and Diseases, 2019, 6, 342-358.	3.4	42
45	Biodegradable poly(diol citrate) nanocomposite elastomers for soft tissue engineering. Journal of Materials Chemistry, 2007, 17, 900-906.	6.7	41
46	Vascular scaffolds with enhanced antioxidant activity inhibit graft calcification. Biomaterials, 2017, 144, 166-175.	11.4	41
47	The role of hydroxyapatite in citric acid-based nanocomposites: Surface characteristics, degradation, and osteogenicity in vitro. Acta Biomaterialia, 2011, 7, 4057-4063.	8.3	39
48	Bone morphogenetic protein 9 (BMP9) induces effective bone formation from reversibly immortalized multipotent adipose-derived (iMAD) mesenchymal stem cells. American Journal of Translational Research (discontinued), 2016, 8, 3710-3730.	0.0	39
49	Subcutaneous nanotherapy repurposes the immunosuppressive mechanism of rapamycin to enhance allogeneic islet graft viability. Nature Nanotechnology, 2022, 17, 319-330.	31.5	37
50	Nanoporous Biodegradable Elastomers. Advanced Materials, 2009, 21, 188-192.	21.0	36
51	Clinical Relevance of Pre-Existing and Treatment-Induced Anti-Poly(Ethylene Glycol) Antibodies. Regenerative Engineering and Translational Medicine, 2022, 8, 32-42.	2.9	35
52	Flexible, wearable microfluidic contact lens with capillary networks for tear diagnostics. Journal of Materials Science, 2020, 55, 9551-9561.	3.7	34
53	Early tissue response to citric acidâ€“based microâ€•and nanocomposites. Journal of Biomedical Materials Research - Part A, 2011, 96A, 29-37.	4.0	33
54	InÂVitro Characterization of a Compliant Biodegradable Scaffold with a Novel Bioreactor System. Annals of Biomedical Engineering, 2007, 35, 1357-1367.	2.5	32

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55	Characterization of Porcine Circulating Progenitor Cells: Toward a Functional Endothelium. Tissue Engineering - Part A, 2008, 14, 183-194.	3.1	32
56	Repair of critical sized cranial defects with BMP9-transduced calvarial cells delivered in a thermoresponsive scaffold. PLoS ONE, 2017, 12, e0172327.	2.5	32
57	Citric acidâ€based elastomers provide a biocompatible interface for vascular grafts. Journal of Biomedical Materials Research - Part A, 2010, 93A, 314-324.	4.0	31
58	A polymerâ€“extracellular matrix composite with improved thromboresistance and recellularization properties. Acta Biomaterialia, 2015, 18, 50-58.	8.3	30
59	Poly(diol<i>â€coâ€</i>citrate)s as Novel Elastomeric Perivascular Wraps for the Reduction of Neointimal Hyperplasia. Macromolecular Bioscience, 2011, 11, 700-709.	4.1	29
60	A biodegradable tri-component graft for anterior cruciate ligament reconstruction. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 704-712.	2.7	29
61	Low-Pressure Foaming: A Novel Method for the Fabrication of Porous Scaffolds for Tissue Engineering. Tissue Engineering - Part C: Methods, 2012, 18, 113-121.	2.1	28
62	Biomimetic approaches to complex craniofacial defects. Annals of Maxillofacial Surgery, 2015, 5, 4.	0.7	28
63	Photo-crosslinked biodegradable elastomers for controlled nitric oxide delivery. Biomaterials Science, 2013, 1, 625.	5.4	27
64	Modulating the mechanical properties of poly(diol citrates) via the incorporation of a second type of crosslink network. Journal of Applied Polymer Science, 2009, 114, 1464-1470.	2.6	26
65	Growth factor release from a chemically modified elastomeric poly(1,8â€octanediolâ€coâ€citrate) thin film promotes angiogenesis<i>in vivo</i>. Journal of Biomedical Materials Research - Part A, 2012, 100A, 561-570.	4.0	26
66	A novel immunoadsorption device for removing Î²2-microglobulin from whole blood. Kidney International, 2001, 59, 1544-1550.	5.2	25
67	Reversibly immortalized keratinocytes (iKera) facilitate re-epithelization and skin wound healing: Potential applications in cell-based skin tissue engineering. Bioactive Materials, 2022, 9, 523-540.	15.6	24
68	Long-term in vivo response to citric acid-based nanocomposites for orthopaedic tissue engineering. Journal of Materials Science: Materials in Medicine, 2011, 22, 2131-2138.	3.6	23
69	Polymer-integrated amnion scaffold significantly improves cleft palate repair. Acta Biomaterialia, 2019, 92, 104-114.	8.3	23
70	Neural EGF-like protein 1 (NELL-1): Signaling crosstalk in mesenchymal stem cells and applications in regenerative medicine. Genes and Diseases, 2017, 4, 127-137.	3.4	22
71	Biodegradable nitric oxideâ€releasing poly(diol citrate) elastomers. Journal of Biomedical Materials Research - Part A, 2010, 93A, 356-363.	4.0	21
72	Antioxidant Polymers as Biomaterial. , 2016, , 251-296.		21

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73	Enabling non-invasive assessment of an engineered endothelium on ePTFE vascular grafts without increasing oxidative stress. Biomaterials, 2015, 69, 110-120.	11.4	20
74	Single capillary oximetry and tissue ultrastructural sensing by dual-band dual-scan inverse spectroscopic optical coherence tomography. Light: Science and Applications, 2018, 7, 57.	16.6	20
75	Periadventitial atRA citrate-based polyester membranes reduce neointimal hyperplasia and restenosis after carotid injury in rats. American Journal of Physiology - Heart and Circulatory Physiology, 2014, 307, H1419-H1429.	3.2	19
76	A biodegradable vascularizing membrane: A feasibility study. Acta Biomaterialia, 2007, 3, 631-642.	8.3	17
77	Advanced nanocomposites for bone regeneration. Biomaterials Science, 2014, 2, 1355.	5.4	17
78	Mechanocompatible Polymerâ€Extracellularâ€Matrix Composites for Vascular Tissue Engineering. Advanced Healthcare Materials, 2016, 5, 1594-1605.	7.6	17
79	Biodegradable Elastomers with Antioxidant and Retinoid-like Properties. ACS Biomaterials Science and Engineering, 2016, 2, 268-277.	5.2	17
80	SIRT1 Overexpression Maintains Cell Phenotype and Function of Endothelial Cells Derived from Induced Pluripotent Stem Cells. Stem Cells and Development, 2015, 24, 2740-2745.	2.1	16
81	Inhibiting intimal hyperplasia in prosthetic vascular grafts via immobilized all-trans retinoic acid. Journal of Controlled Release, 2018, 274, 69-80.	9.9	16
82	Multimodal interference-based imaging of nanoscale structure and macromolecular motion uncovers UV induced cellular paroxysm. Nature Communications, 2019, 10, 1652.	12.8	16
83	Single-chain antibody fragment-based adsorbent for the extracorporeal removal of Î²2-microglobulin. Kidney International, 2004, 65, 310-322.	5.2	15
84	Biomechanical characterization of vaginal versus abdominal surgical wound healing in the rabbit. American Journal of Obstetrics and Gynecology, 2006, 194, 1472-1477.	1.3	15
85	A new strategy to characterize the extent of reaction of thermoset elastomers. Journal of Polymer Science Part A, 2008, 46, 1318-1328.	2.3	15
86	Impact of serum source and inflammatory cytokines on the isolation of endothelial colony-forming cells from peripheral blood. Journal of Tissue Engineering and Regenerative Medicine, 2014, 8, 747-756.	2.7	15
87	Fabrication Speed Optimization for High-resolution 3D-printing of Bioresorbable Vascular Scaffolds. Procedia CIRP, 2017, 65, 131-138.	1.9	14
88	A thermoresponsive, citrateâ€based macromolecule for bone regenerative engineering. Journal of Biomedical Materials Research - Part A, 2018, 106, 1743-1752.	4.0	14
89	Effect of bilateral oophorectomy on wound healing of the rabbit vagina. Fertility and Sterility, 2011, 95, 1467-1470.	1.0	12
90	A Receptorâ€Based Bioadsorbent to Target Advanced Glycation End Products in Chronic Kidney Disease. Artificial Organs, 2014, 38, 474-483.	1.9	12

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91	Antioxidants modulate the antiproliferative effects of nitric oxide on vascular smooth muscle cells and adventitial fibroblasts by regulating oxidative stress. American Journal of Surgery, 2011, 202, 536-540.	1.8	11
92	Sustained, localized transgene expression mediated from lentivirusâ€loaded biodegradable polyester elastomers. Journal of Biomedical Materials Research - Part A, 2013, 101A, 1328-1335.	4.0	11
93	Bone Morphogenetic Protein-9â€“Stimulated Adipocyte-Derived Mesenchymal Progenitors Entrapped in a Thermoresponsive Nanocomposite Scaffold Facilitate Cranial Defect Repair. Journal of Craniofacial Surgery, 2019, 30, 1915-1919.	0.7	11
94	Characterization of Porcine Circulating Progenitor Cells: Toward a Functional Endothelium. Tissue Engineering, 2008, 14, 183-194.	4.6	11
95	Modalities for the Removal of Î² ₂ â€Microglobulin fromâ€ƒBlood. Seminars in Dialysis, 2001, 14, 103-106.	1.3	10
96	Modeling the mixing behavior of a novel fluidized extracorporeal immunoadsorber. Chemical Engineering Science, 2001, 56, 5437-5441.	3.8	9
97	Understanding and Harnessing Variability in Regenerative Engineering. Regenerative Engineering and Translational Medicine, 2020, 6, 429-432.	2.9	9
98	Cyclodextrin-modified poly(octamethylene citrate) polymers towards enhanced sorption properties. Soft Matter, 2020, 16, 3311-3318.	2.7	9
99	3Dâ€Printed Electroactive Hydrogel Architectures with Subâ€100ÂÂµm Resolution Promote Myoblast Viability. Macromolecular Bioscience, 2022, 22, .	4.1	9
100	Spectroscopic translation of cellâ€“material interactions. Biomaterials, 2007, 28, 162-174.	11.4	7
101	Process development for high-resolution 3D-printing of bioresorbable vascular stents. Proceedings of SPIE, 2017, , .	0.8	7
102	Structural behavior of competitive temperature and pH-responsive tethered polymer layers. Soft Matter, 2017, 13, 6322-6331.	2.7	6
103	Mechanical Interlocking of Engineered Cartilage to an Underlying Polymeric Substrate: Towards a Biohybrid Tissue Equivalent. Annals of Biomedical Engineering, 2006, 34, 737-747.	2.5	5
104	Bone morphogenetic protein-9 effectively induces osteogenic differentiation of reversibly immortalized calvarial mesenchymal progenitor cells. Genes and Diseases, 2015, 2, 268-275.	3.4	5
105	Assessment of an engineered endothelium via singleâ€photon emission computed tomography. Biotechnology and Bioengineering, 2017, 114, 2371-2378.	3.3	5
106	Assessment of the Stability of an Immunoadsorbent for the Extracorporeal Removal of Beta-2-Microglobulin from Blood. Blood Purification, 2005, 23, 287-297.	1.8	4
107	A Tailorable In Situ Lightâ€Activated Biodegradable Vascular Scaffold. Advanced Materials Technologies, 2017, 2, 1600243.	5.8	4
108	Cell-killing potential of a water-soluble radical initiator. International Journal of Cancer, 2001, 93, 875-879.	5.1	3

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109	Biohybrid Strategies for Vascular Grafts. , 2011, , 279-316.		3
110	Diazeniumdiolation of protamine sulfate reverses mitogenic effects on smooth muscle cells and fibroblasts. Free Radical Biology and Medicine, 2015, 82, 13-21.	2.9	3
111	Shape-Memory Polymers: Novel Biodegradable Shape-Memory Elastomers with Drug-Releasing Capabilities (Adv. Mater. 19/2011). Advanced Materials, 2011, 23, 2210-2210.	21.0	2
112	Imiquimod Acts Synergistically with BMP9 through the Notch Pathway as an Osteoinductive Agent In Vitro. Plastic and Reconstructive Surgery, 2019, 144, 1094-1103.	1.4	2
113	Tissue Engineering: Mechanocompatible Polymerâ€Extracellularâ€Matrix Composites for Vascular Tissue Engineering (Adv. Healthcare Mater. 13/2016). Advanced Healthcare Materials, 2016, 5, 1593-1593.	7.6	1
114	Azo polymerization of citrateâ€based biomaterialâ€ceramic composites at physiological temperatures. Nano Select, 2022, 3, 1421-1435.	3.7	1
115	Biomedical Materials: Nanoporous Biodegradable Elastomers (Adv. Mater. 2/2009). Advanced Materials, 2009, 21, NA-NA.	21.0	0
116	3D-printed bioresorbable vascular scaffolds: an important step towards personalizing vascular medical devices?. Expert Review of Precision Medicine and Drug Development, 2017, 2, 145-146.	0.7	0
117	Nanocomposites for Regenerative Medicine. NATO Science for Peace and Security Series A: Chemistry and Biology, 2010, , 175-206.	0.5	0
118	209.8: Subcutaneous Nanotherapy Repurposes the Immunosuppressive Mechanism of Rapamycin to Enhance Allogeneic Islet Graft Viability. Transplantation, 2021, 105, S17-S17.	1.0	0